SEQUENCE LISTING

<110>   Brockhaus, et al.

<120>   Human TNF Receptor

<130>   01017/40451C

<140>   US 08/444,791
<141>   1995-05-19

<150>   US 08/095,640
<151>   1993-07-21

<150>   US 07/580,013
<151>   1990-09-10

<150>   CH 1347/90
<151>   1990-04-20

<150>   CH 746/90
<151>   1990-03-08

<150>   CH 3319/89
<151>   1989-09-12

<160>   26

<170>   PatentIn version 3.3

<210>   1
<211>   2111
<212>   DNA
<213>   Homo sapiens

<400>   1

```
gaattcgggg gggttcaaga tcactgggac caggccgtga tctctatgcc cgagtctcaa        60

ccctcaactg tcaccccaag gcacttggga cgtcctggac agaccgagtc ccgggaagcc       120

ccagcactgc cgctgccaca ctgccctgag cccaaatggg ggagtgagag gccatagctg       180

tctggcatgg gcctctccac cgtgcctgac ctgctgctgc cgctggtgct cctggagctg       240

ttggtgggaa tatacccctc aggggttatt ggactggtcc ctcacctagg gacagggag        300

aagagagata gtgtgtgtcc ccaaggaaaa tatatccacc ctcaaaataa ttcgatttgc       360

tgtaccaagt gccacaaagg aacctacttg tacaatgact gtccaggccc ggggcaggat       420

acggactgca gggagtgtga gagcggctcc ttcaccgctt cagaaaacca cctcagacac       480

tgcctcagct gctccaaatg ccgaaaggaa atgggtcagg tggagatctc ttcttgcaca       540

gtggaccggg acaccgtgtg tggctgcagg aagaaccagt accggcatta ttggagtgaa       600

aacctttttcc agtgcttcaa ttgcagcctc tgcctcaatg gaccgtgca cctctcctgc       660

caggagaaac agaacaccgt gtgcacctgc catgcaggtt tctttctaag agaaaacgag       720

tgtgtctcct gtagtaactg taagaaaagc ctggagtgca cgaagttgtg cctaccccag       780

attgagaatg ttaagggcac tgaggactca ggcaccacag tgctgttgcc cctggtcatt       840
```

```
ttctttggtc tttgcctttt atccctcctc ttcattggtt taatgtatcg ctaccaacgg    900

tggaagtcca agctctactc cattgtttgt gggaaatcga cacctgaaaa agagggggag    960

cttgaaggaa ctactactaa gcccctggcc ccaaacccaa gcttcagtcc cactccaggc   1020

ttcaccccca ccctgggctt cagtcccgtg cccagttcca ccttcacctc cagctccacc   1080

tatacccccg gtgactgtcc caactttgcg gctccccgca gagaggtggc accaccctat   1140

cagggggctg accccatcct tgcgacagcc ctcgcctccg accccatccc caaccccctt   1200

cagaagtggg aggacagcgc ccacaagcca cagagcctag acactgatga ccccgcgacg   1260

ctgtacgccg tggtggagaa cgtgcccccg ttgcgctgga aggaattcgt gcggcgccta   1320

gggctgagcg accacgagat cgatcggctg gagctgcaga cgggcgctg cctgcgcgag    1380

gcgcaataca gcatgctggc gacctggagg cggcgcacgc cgcggcgcga ggccacgctg    1440

gagctgctgg gacgcgtgct ccgcgacatg gacctgctgg ctgcctgga ggacatcgag    ·1500

gaggcgcttt gcggccccgc cgccctcccg cccgcgccca gtcttctcag atgaggctgc   1560

gcccctgcgg gcagctctaa ggaccgtcct gcgagatcgc cttccaaccc cactttttc    1620

tggaaaggag gggtcctgca ggggcaagca ggagctagca gccgcctact tggtgctaac   1680

ccctcgatgt acatagcttt tctcagctgc ctgcgcgccg ccgacagtca gcgctgtgcg   1740

cgcggagaga ggtgcgccgt gggctcaaga gcctgagtgg gtggtttgcg aggatgaggg   1800

acgctatgcc tcatgcccgt tttgggtgtc ctcaccagca aggctgctcg ggggcccctg   1860

gttcgtccct gagcctttt cacagtgcat aagcagtttt ttttgttttt gttttgtttt    1920

gttttgtttt taaatcaatc atgttacact aatagaaact tggcactcct gtgccctctg   1980

cctggacaag cacatagcaa gctgaactgt cctaaggcag gggcgagcac ggaacaatgg   2040

ggccttcagc tggagctgtg gacttttgta catacactaa aattctgaag ttaaaaaaaa   2100

aacccgaatt c                                                        2111


<210>  2
<211>  455
<212>  PRT
<213>  Homo sapiens

<400>  2

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
1               5                   10                  15


Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
            20                  25                  30


His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
        35                  40                  45
```

```
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
    50                  55                60
```

```
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
65                  70            75                    80
```

```
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
            85                  90                95
```

```
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
            100             105             110
```

```
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
        115             120             125
```

```
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
    130             135             140
```

```
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
145             150             155             160
```

```
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
            165             170             175
```

```
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
            180             185             190
```

```
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
            195             200             205
```

```
Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
    210             215             220
```

```
Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
225             230             235             240
```

```
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
            245             250             255
```

```
Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
            260             265             270
```

```
Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
        275             280             285
```

```
Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
    290             295             300
```

```
Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
305                 310             315         320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
                325             330             335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
                340             345             350

Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
            355             360             365

Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
    370             375             380

Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
385             390             395             400

Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
                405             410             415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
        420             425             430

Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
        435             440             445

Pro Ala Pro Ser Leu Leu Arg
    450             455


<210>   3
<211>   2339
<212>   DNA
<213>   Homo sapiens

<400>   3
tcggacaccg tgtgtgactc ctgtgaggac agcacataca cccagctctg gaactgggtt      60

cccgagtgct tgagctgtgg ctcccgctgt agctctgacc aggtggaaac tcaagcctgc     120

actcgggaac agaaccgcat ctgcacctgc aggcccggct ggtactgcgc gctgagcaag     180

caggaggggt gccggctgtg cgcgccgctg ccgaagtgcc gcccgggctt cggcgtggcc     240

agaccaggaa ctgaaacatc agacgtggtg tgcaagccct gtgccccggg gacgttctcc     300

aacacgactt catccacgga tatttgcagg ccccaccaga tctgtaacgt ggtggccatc     360

cctgggaatg caagcaggga tgcagtctgc acgtccacgt cccccacccg gagtatggcc     420

ccaggggcag tacacttacc ccagccagtg tccacacgat cccaacacac gcagccaagt     480

ccagaaccca gcactgctcc aagcacctcc ttcctgctcc caatgggccc cagcccccca     540
```

-4-

```
gctgaaggga gcactggcga cttcgctctt ccagttggac tgattgtggg tgtgacagcc    600

ttgggtctac taataatagg agtggtgaac tgtgtcatca tgacccaggt gaaaaagaag    660

 cccttgtgcc tgcagagaga agccaaggtg cctcacttgc ctgccgataa ggcccggggt    720

acacagggcc ccgagcagca gcacctgctg atcacagcgc cgagctccag cagcagctcc    780

ctggagagct cggccagtgc gttggacaga agggcgccca ctcggaacca gccacaggca    840

ccaggcgtgg aggccagtgg ggccggggag gcccgggcca gcaccgggag ctcagcagat    900

tcttcccctg gtggccatgg acccaggtc aatgtcacct gcatcgtgaa cgtctgtagc    960

agctctgacc acagctcaca gtgctcctcc caagccagct ccacaatggg agacacagat   1020

tccagcccct cggagtcccc gaaggacgag caggtcccct tctccaagga ggaatgtgcc   1080

tttcggtcac agctggagac gccagagacc ctgctgggga gcaccgaaga gaagcccctg   1140

ccccttggag tgcctgatgc tgggatgaag cccagttaac caggccggtg tgggctgtgt   1200

cgtagccaag gtggctgagc cctggcagga tgacctgcg aaggggccct ggtccttcca   1260

ggcccccacc actaggactc tgaggctctt tctgggccaa gttcctctag tgccctccac   1320

agccgcagcc tccctctgac ctgcaggcca agagcagagg cagcgagttg tggaaagcct   1380

ctgctgccat ggcgtgtccc tctcggaagg ctggctgggc atggacgttc ggggcatgct   1440

ggggcaagtc cctgagtctc tgtgacctgc cccgcccagc tgcacctgcc agcctggctt   1500

ctggagccct tgggtttttt gtttgtttgt ttgtttgttt gtttgtttct cccctgggc   1560

tctgcccagc tctggcttcc agaaaacccc agcatccttt tctgcagagg ggctttctgg   1620

agaggaggga tgctgcctga gtcacccatg aagacaggac agtgcttcag cctgaggctg   1680

agactgcggg atggtcctgg ggctctgtgc agggaggagg tggcagccct gtagggaacg   1740

gggtccttca agttagctca ggaggcttgg aaagcatcac ctcaggccag gtgcagtggc   1800

tcacgcctat gatcccagca ctttgggagg ctgaggcggg tggatcacct gaggttagga   1860

gttcgagacc agcctggcca acatggtaaa accccatctc tactaaaaat acagaaatta   1920

gccgggcgtg gtggcgggca cctatagtcc cagctactca gaagcctgag gctgggaaat   1980

cgtttgaacc cgggaagcgg aggttgcagg gagccgagat cacgccactg cactccagcc   2040

tgggcgacag agcgagagtc tgtctcaaaa gaaaaaaaaa aagcaccgcc tccaaatgct   2100

aacttgtcct tttgtaccat ggtgtgaaag tcagatgccc agagggccca ggcaggccac   2160

catattcagt gctgtggcct gggcaagata acgcacttct aactagaaat ctgccaattt   2220

tttaaaaaag taagtaccac tcaggccaac aagccaacga caaagccaaa ctctgccagc   2280

cacatccaac cccccacctg ccatttgcac cctccgcctt cactccggtg tgcctgcag   2339

<210>   4
<211>   392
```

<212> PRT
<213> Homo sapiens

<400> 4

Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu
1   5   10   15

Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser
            20   25   30

Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys
        35   40   45

Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
    50   55   60

Arg Leu Cys Ala Pro Leu Pro Lys Cys Arg Pro Gly Phe Gly Val Ala
65   70   75   80

Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro
            85   90   95

Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His
            100   105   110

Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Arg Asp Ala
        115   120   125

Val Cys Thr Ser Thr Ser Pro Thr Arg Ser Met Ala Pro Gly Ala Val
    130   135   140

His Leu Pro Gln Pro Val Ser Thr Arg Ser Gln His Thr Gln Pro Ser
145   150   155   160

Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser Phe Leu Leu Pro Met Gly
            165   170   175

Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly Asp Phe Ala Leu Pro Val
            180   185   190

Gly Leu Ile Val Gly Val Thr Ala Leu Gly Leu Leu Ile Ile Gly Val
        195   200   205

Val Asn Cys Val Ile Met Thr Gln Val Lys Lys Lys Pro Leu Cys Leu
    210   215   220

Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly
225   230   235   240

-6-

```
Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser
            245             250             255

Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala
            260             265             270

Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala
        275             280             285

Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Ala Asp Ser Ser Pro Gly
    290             295             300

Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser
305             310             315             320

Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met
            325             330             335

Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val
        340             345             350

Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro
        355             360             365

Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val
    370             375             380

Pro Asp Ala Gly Met Lys Pro Ser
385             390


<210>   5
<211>   28
<212>   PRT
<213>   Artificial sequence

<220>
<223>   Synthetic peptide


<220>
<221>   misc_feature
<222>   (25)..(25)
<223>   Xaa = unknown amino acid

<400>   5

Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro
1               5               10              15


Gln Gly Lys Tyr Ile His Pro Glu Xaa Asn Ser Ile
            20              25
```

```
<210>    6
<211>    15
<212>    PRT
<213>    Artificial sequence

<220>
<223>    Synthetic peptide

<400>    6

Ser Thr Pro Glu Lys Glu Gly Glu Leu Glu Gly Thr Thr Thr Lys
1               5                   10                  15


<210>    7
<211>    18
<212>    PRT
<213>    Artificial sequence

<220>
<223>    Synthetic peptide

<400>    7

Ser Gln Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys
1               5                   10                  15


Pro Leu


<210>    8
<211>    4
<212>    PRT
<213>    Artificial sequence

<220>
<223>    Synthetic peptide

<400>    8

Val Phe Cys Thr
1


<210>    9
<211>    16
<212>    PRT
<213>    Artificial sequence

<220>
<223>    Synthetic peptide

<400>    9

Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala Gly Glu Ala
1               5                   10                  15


<210>    10
<211>    18
<212>    PRT
```

<213> Artificial sequence

<220>
<223> Synthetic peptide

<220>
<221> misc_feature
<222> (8)..(8)
<223> Xaa = unknown amino acid

<400> 10

Leu Pro Ala Gln Val Ala Phe Xaa Pro Tyr Ala Pro Glu Pro Gly Ser
1   5   10   15

Thr Cys

<210> 11
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa = unknown amino acid

<400> 11

Ile Xaa Pro Gly Phe Gly Val Ala Tyr Pro Ala Leu Glu
1   5   10

<210> 12
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<400> 12

Leu Cys Ala Pro
1

<210> 13
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<400> 13

Val Pro His Leu Pro Ala Asp
1   5

<210> 14
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<220>
<221> misc_feature
<222> (9)..(10)
<223> Xaa = unknown amino acid

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa = unknown amino acid

<400> 14

Gly Ser Gln Gly Pro Glu Gln Gln Xaa Xaa Leu Ile Xaa Ala Pro
1   5   10   15

<210> 15
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<400> 15

Leu Val Pro His Leu Gly Asp Arg Glu
1   5

<210> 16
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<400> 16
agggagaaga gagatagtgt gtgtccc   27

<210> 17
<211> 41
<212> DNA
<213> Artificial sequence

<220>

<223> Synthetic primer

<400> 17
aagcttggcc aggatccagc tgactgactg atcgcgagat c   41

<210> 18
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Antisense primer

<400> 18
gatctcgcga tcagtcagtc agctggatcc tggccaagct t   41

<210> 19
<211> 38
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 19
cacagggatc catagctgtc tggcatgggc ctctccac   38

<210> 20
<211> 44
<212> DNA
<213> Artificial sequence

<220>
<223> Antisense primer

<400> 20
cccggtacca gatctctatt atgtggtgcc tgagtcctca gtgc   44

<210> 21
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 21
gatccagaat tcataatag   19

<210> 22
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Antisense primer

<400> 22

```
gtacctatta tgaattctg                                             19


<210>  23
<211>  31
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic primer

<400>  23
gcaccacata atagagatct ggtaccggga a                               31


<210>  24
<211>  25
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Antisense primer

<400>  24
cccggtacca gatctctatt atgtg                                      25


<210>  25
<211>  29
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic primer

<400>  25
tacgagctcg gccatagctg tctggcatg                                  29


<210>  26
<211>  29
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic primer

<400>  26
atagagctct gtggtgcctg agtcctcag                                  29
```